

NEVADA DIVISION OF
WATER RESOURCES



I don't need water! Water's for quitters! I don't need it! I don't need it!...

Smith Valley Annual Groundwater Update

March 24, 2026

Updated: April 3, 2026

Presented by:

**Lauren Bartels, Kip Allander, and
Carly Venghaus**

Nevada Division of Water Resources



Additional material: <https://www.youtube.com/watch?v=m5uayeTCYJQ>

OVERVIEW

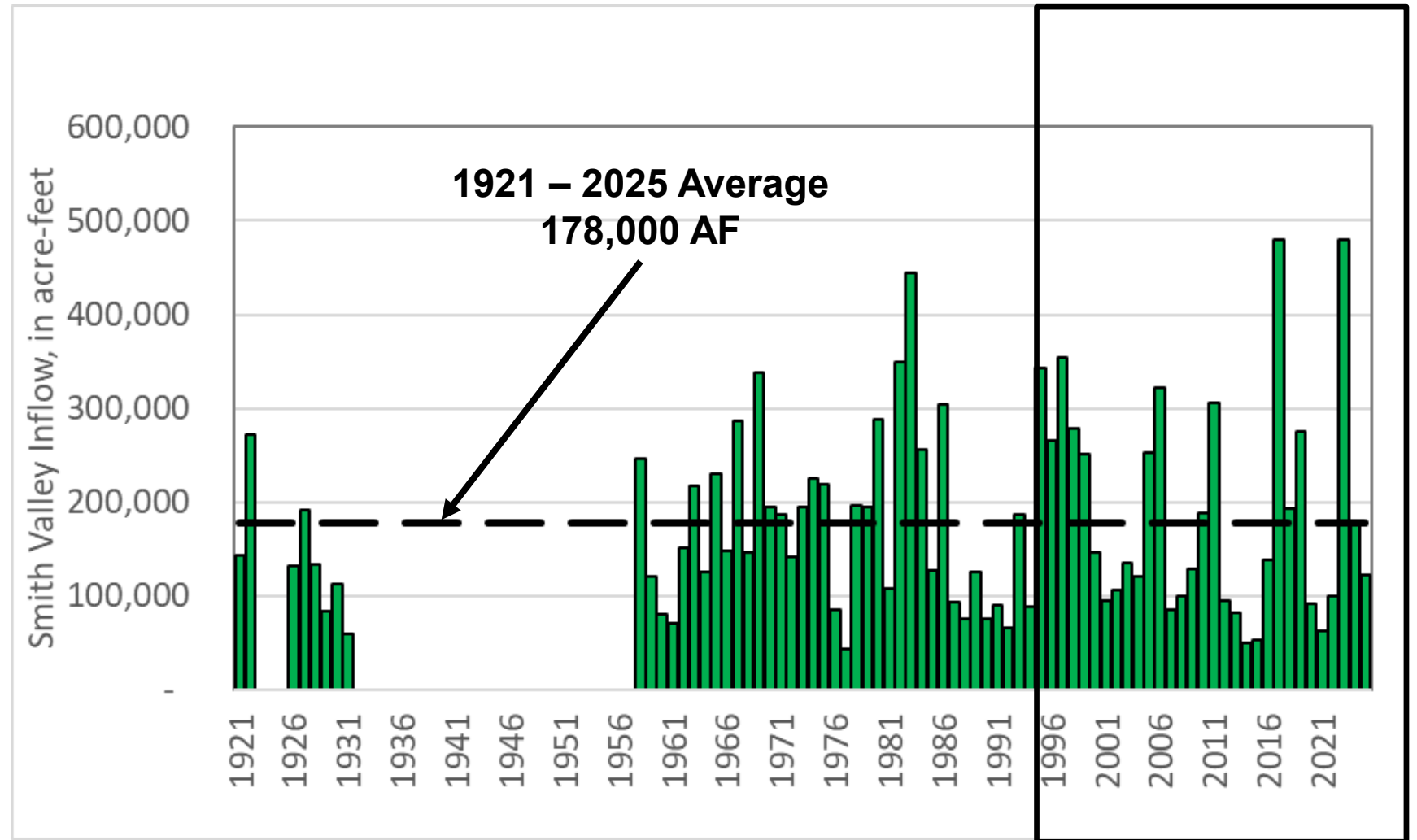
- Recap of 2025 runoff
- Pumping and water levels for 2025
- Current water supply conditions
- Pumping goals for 2026
- Summary and Outlook



RECAP OF 2025 RUNOFF SEASON

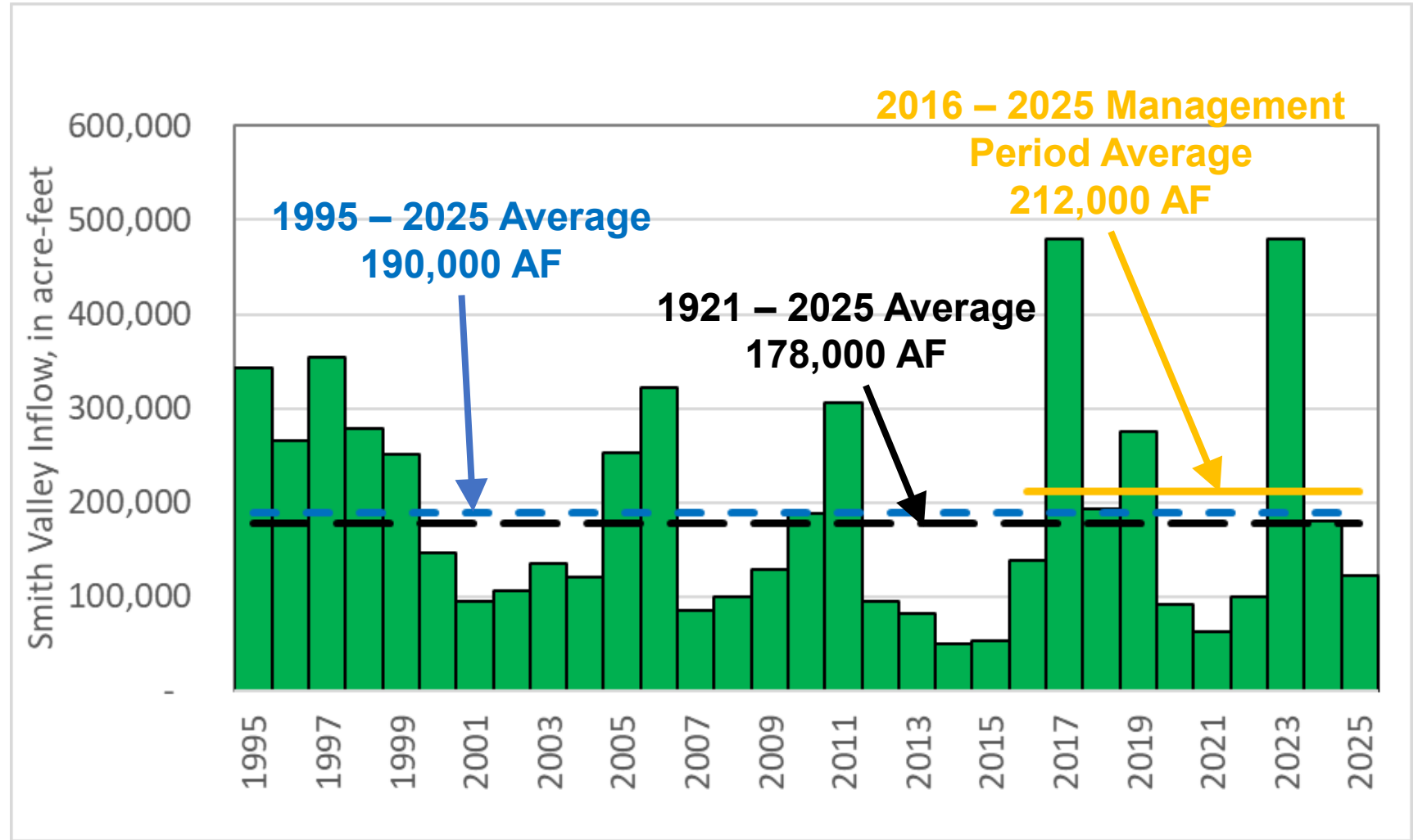
WALKER RIVER INFLOW TO SMITH VALLEY – FULL PERIOD

2025 runoff was less than long-term average by about 56,000 AF.



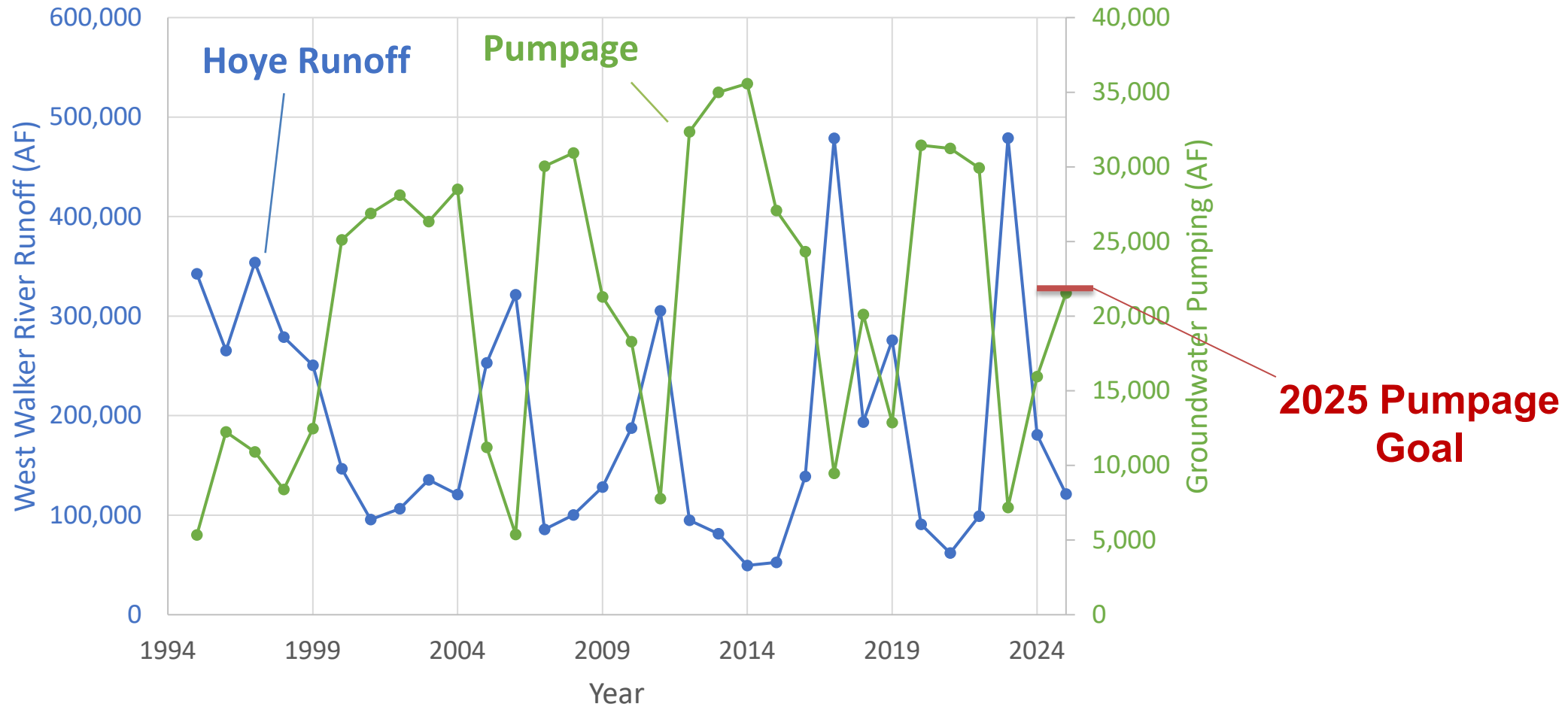
WALKER RIVER INFLOW TO SMITH VALLEY – 2016 – 2025 MANAGEMENT PERIOD

2016 – 2025
Management period
average runoff is 22,000
acre-feet wetter than
1995 – 2025 period.

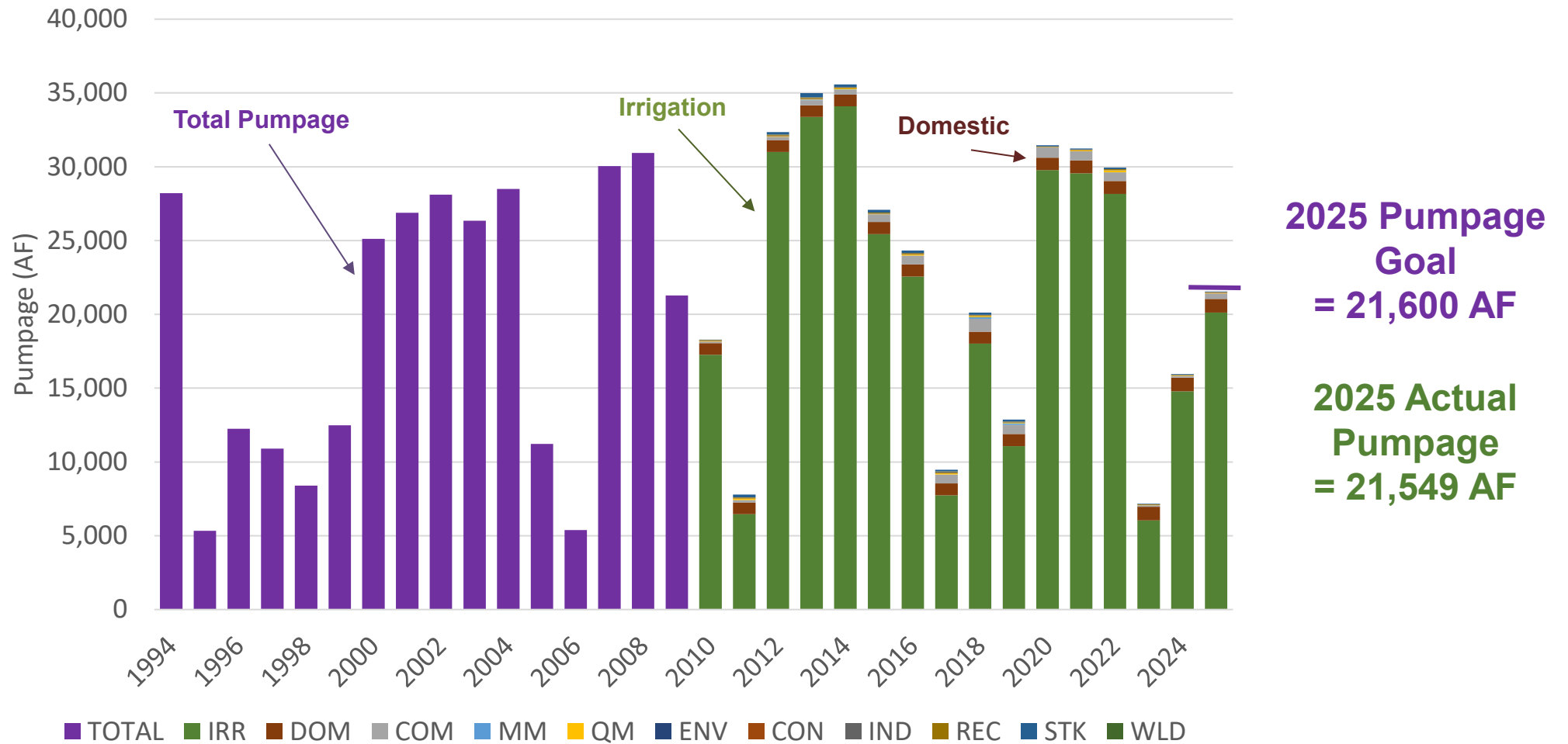


2025 PUMPING AND WATER LEVEL REVIEW

WALKER RIVER STREAMFLOW VS. SMITH VALLEY PUMPING

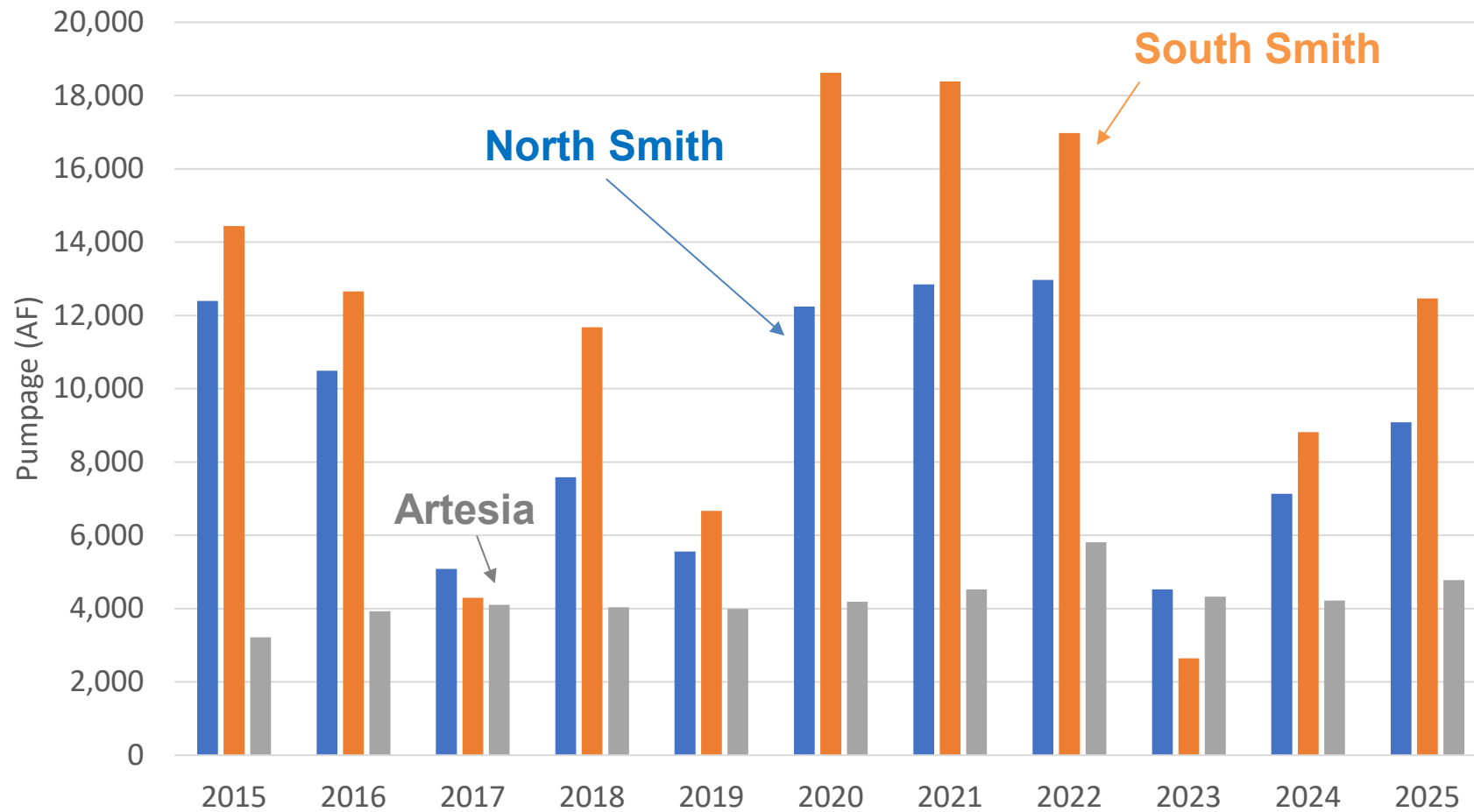


SMITH VALLEY TOTAL PUMPAGE BY MOU (MINUS ARTESIA)



*2025 pumpage data are provisional and subject to revision.

SMITH VALLEY PUMPAGE BY LOCATION



*2025 pumpage data are provisional and subject to revision.

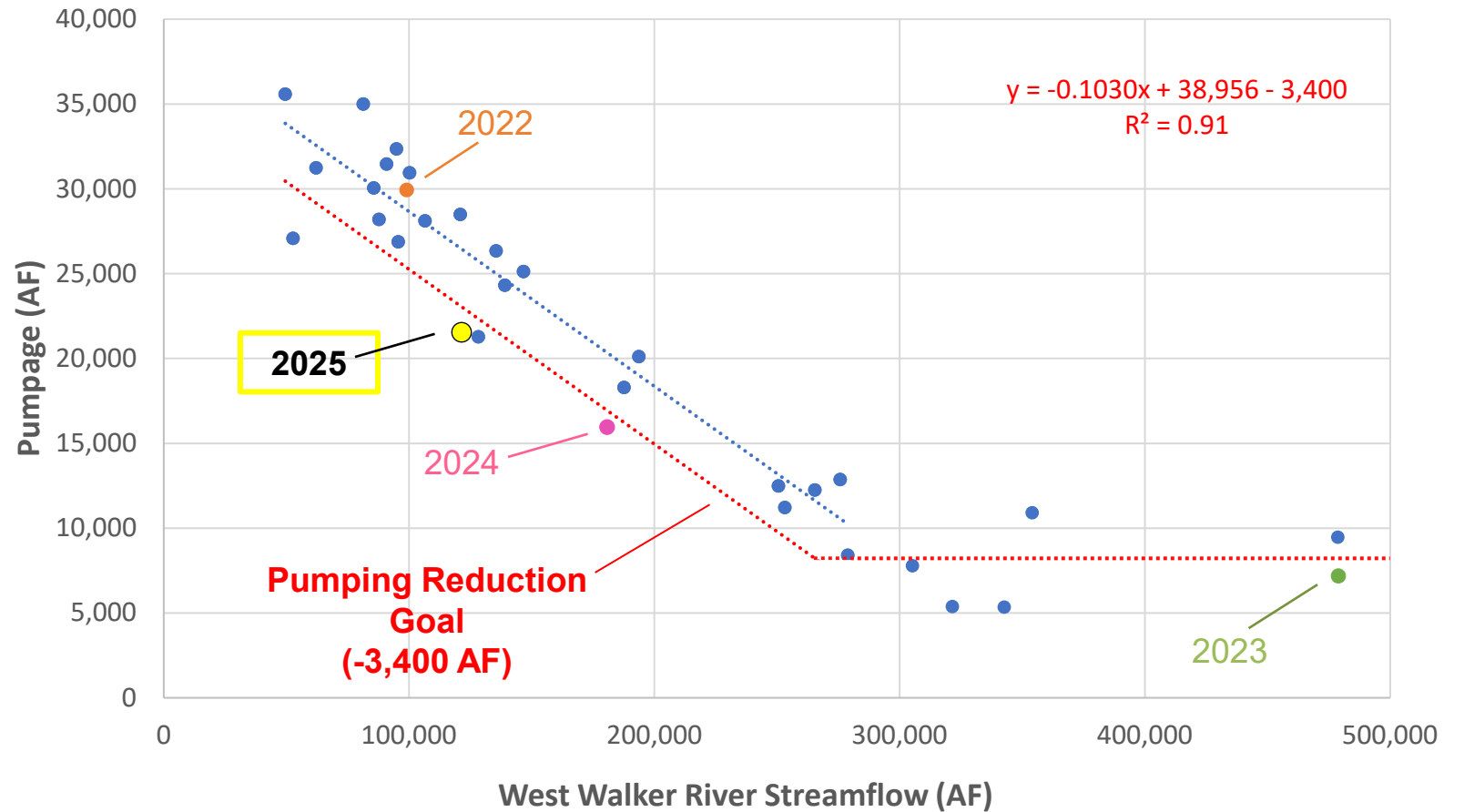
PUMPING PREDICTION 2025 REVIEW – SMITH VALLEY



For 2025, based on actual streamflow and pumping; pumpage came in under goal line.

In 2025, actual pumpage was almost exactly equal to the pumpage goal

Who ever said nobody's perfect? 😊

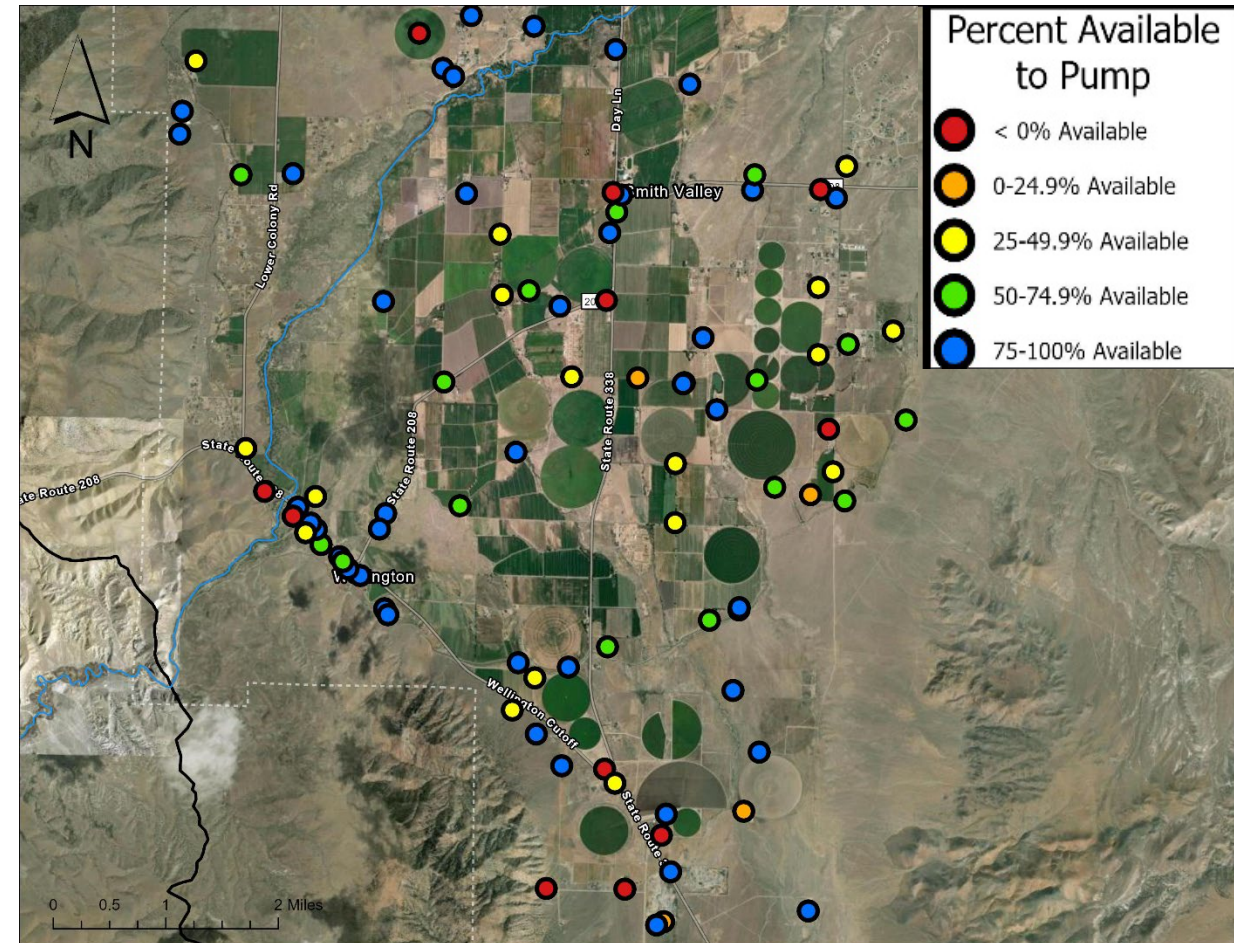
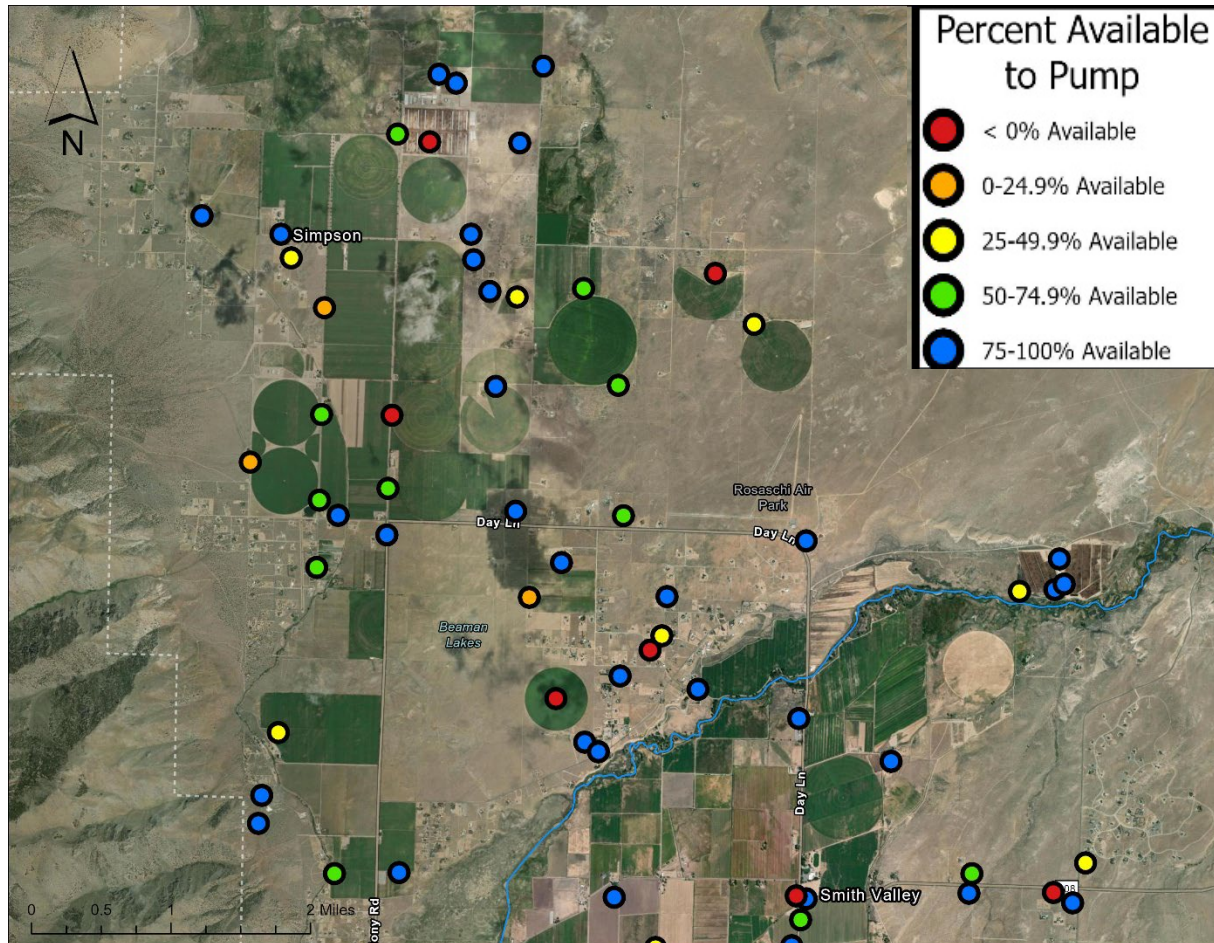


*Top 5 wettest years have been removed from regression; pumping doesn't include Artesia

SMITH PUMPAGE MAP: END OF 2025

Northern Smith

Southern Smith



SMITH PUMPAGE MAP: OVERPUMPING IN 2025

Northern Smith

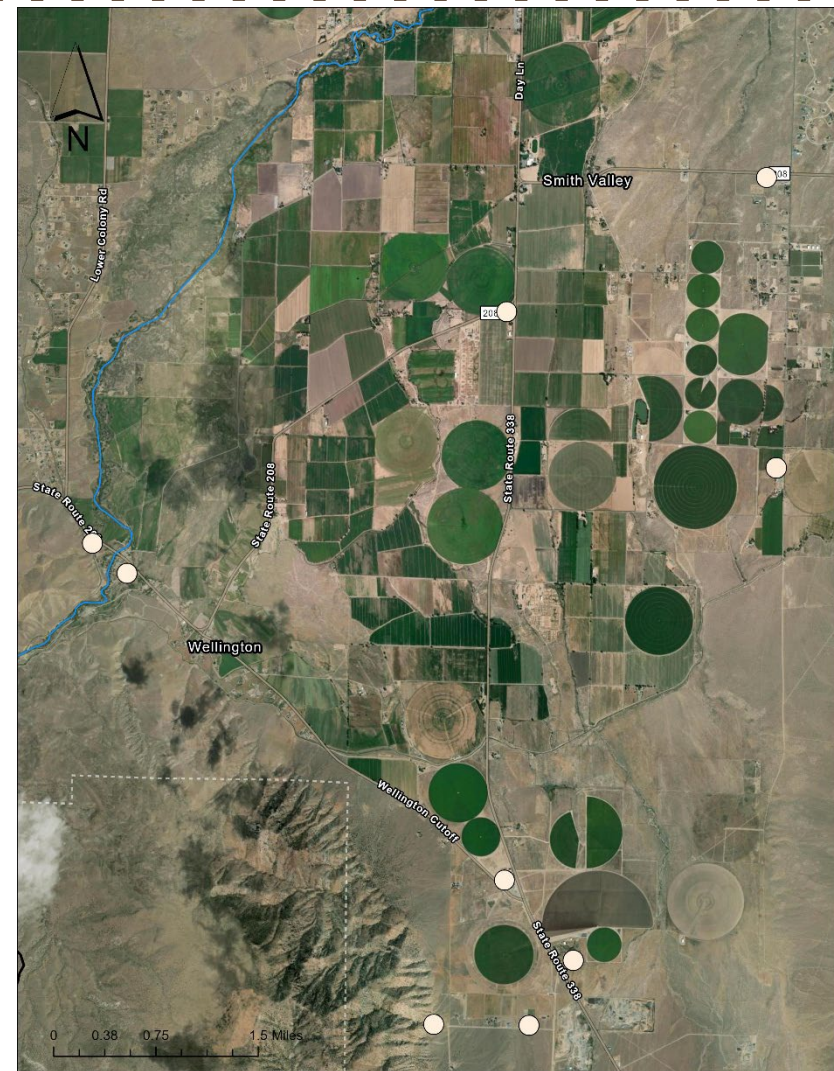


13 out of 139 metered wells over-pumped their duty (by < 50 AF each)

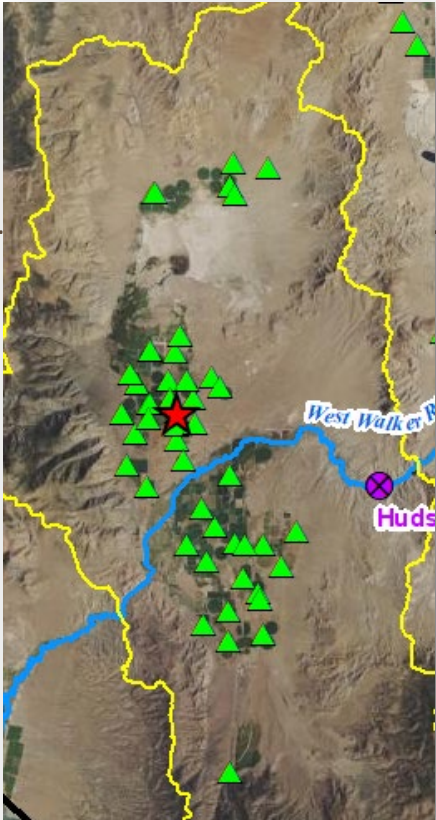
Total volume over-pumped was 70 AF

-  < 50 AF
-  50-100 AF
-  100 – 250 AF
-  250 – 500 AF
-  > 500 AF

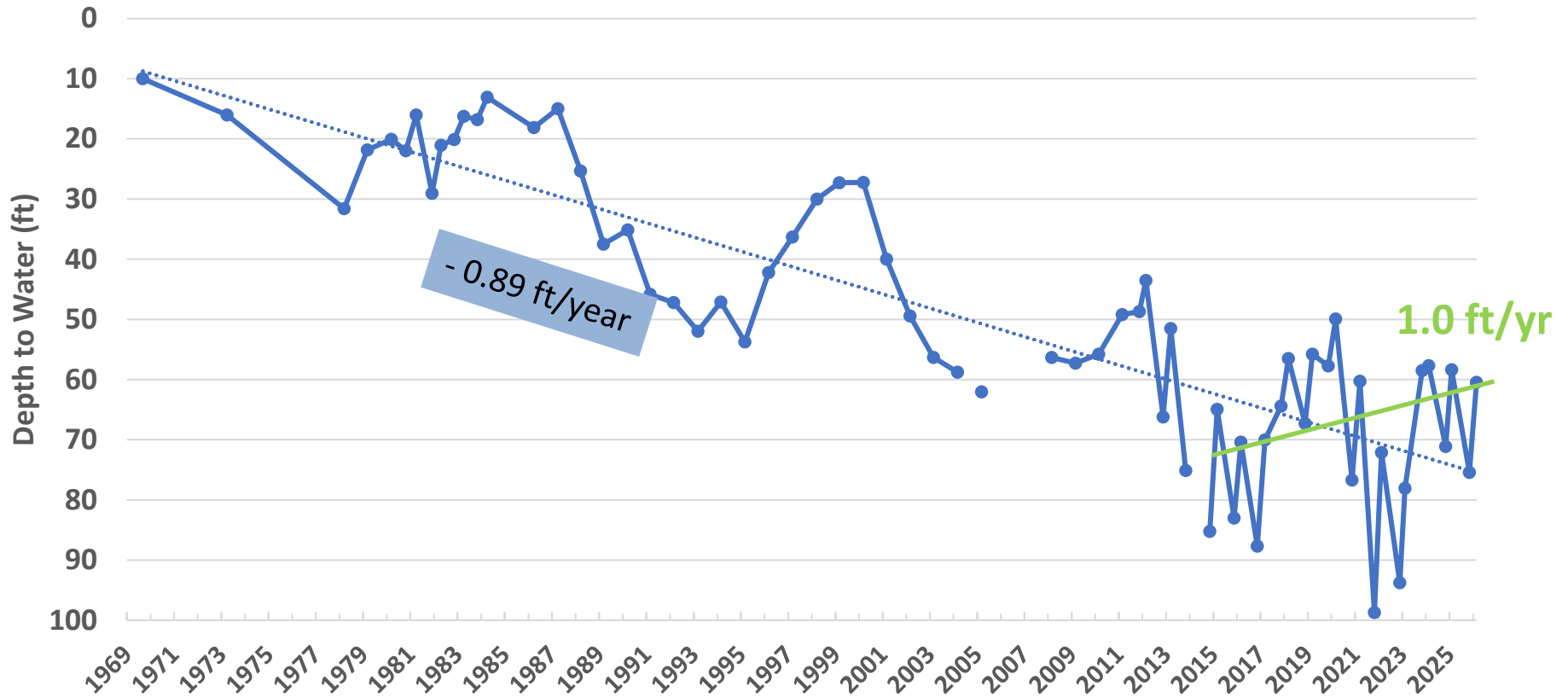
Southern Smith



SMITH VALLEY WATER LEVELS



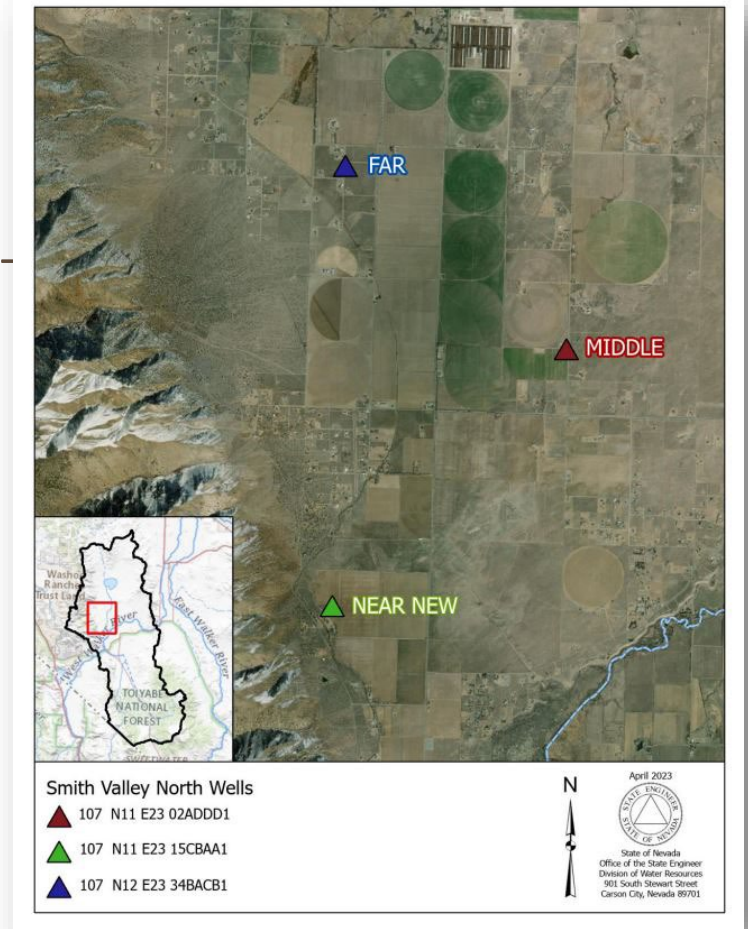
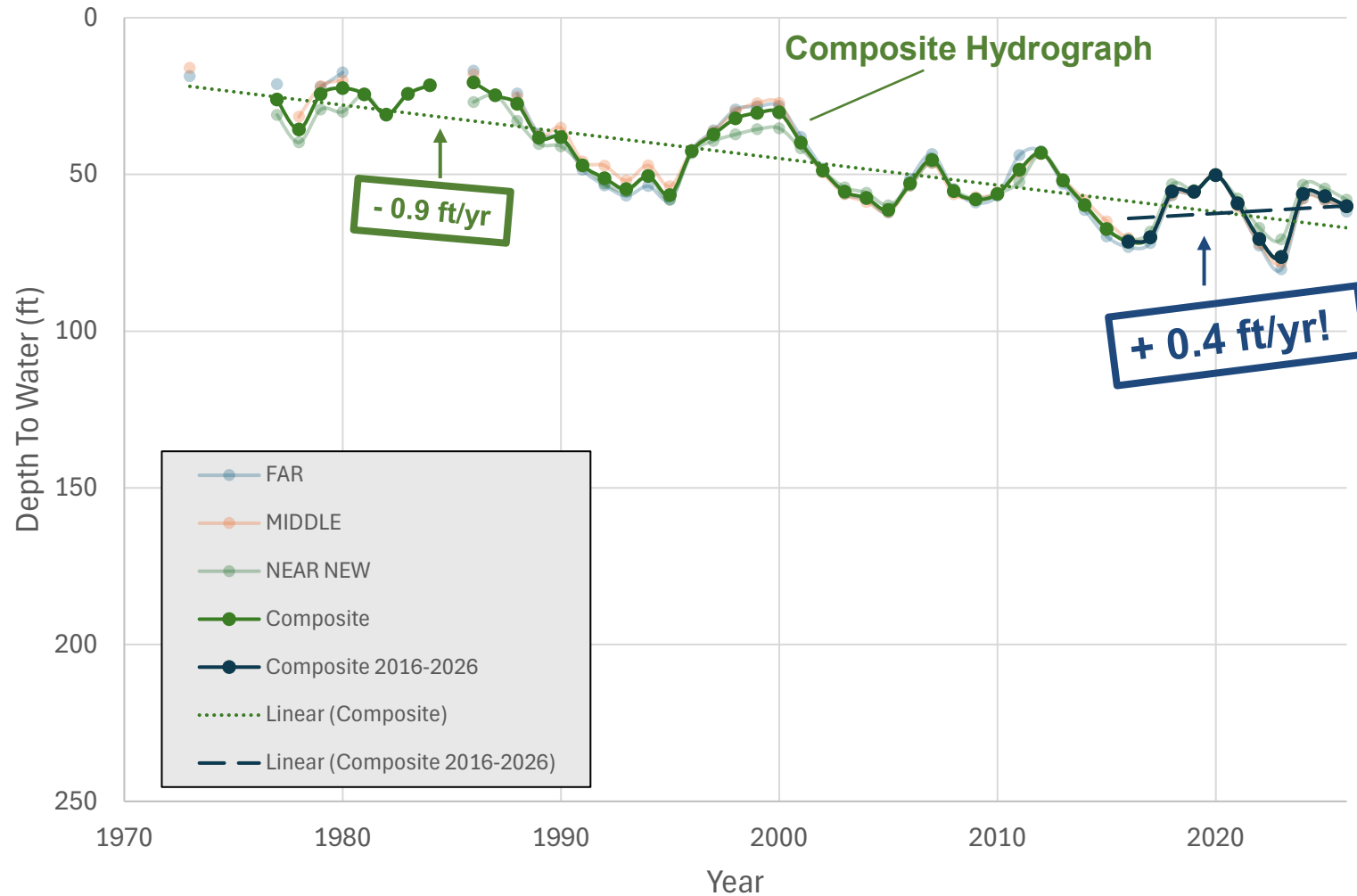
★ 107 N11 E23 02ADDD1



Average Smith Valley Water Level Changes (ft/yr)	
2025-2026	-2.1
2024-2025	-0.7
2016-2026	0.8
2016-2025	1.1

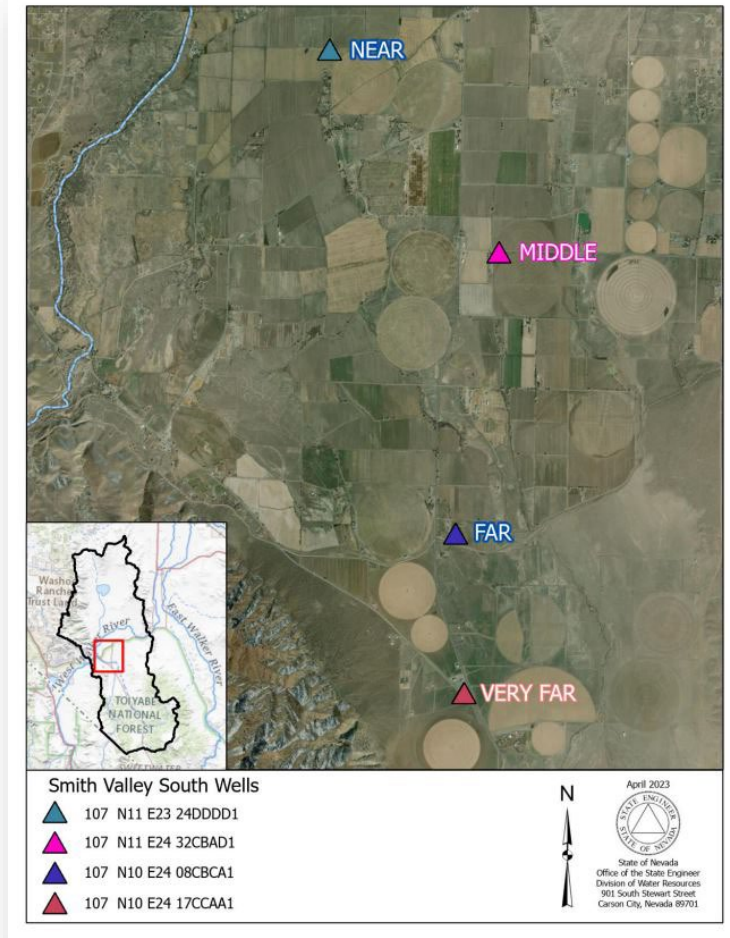
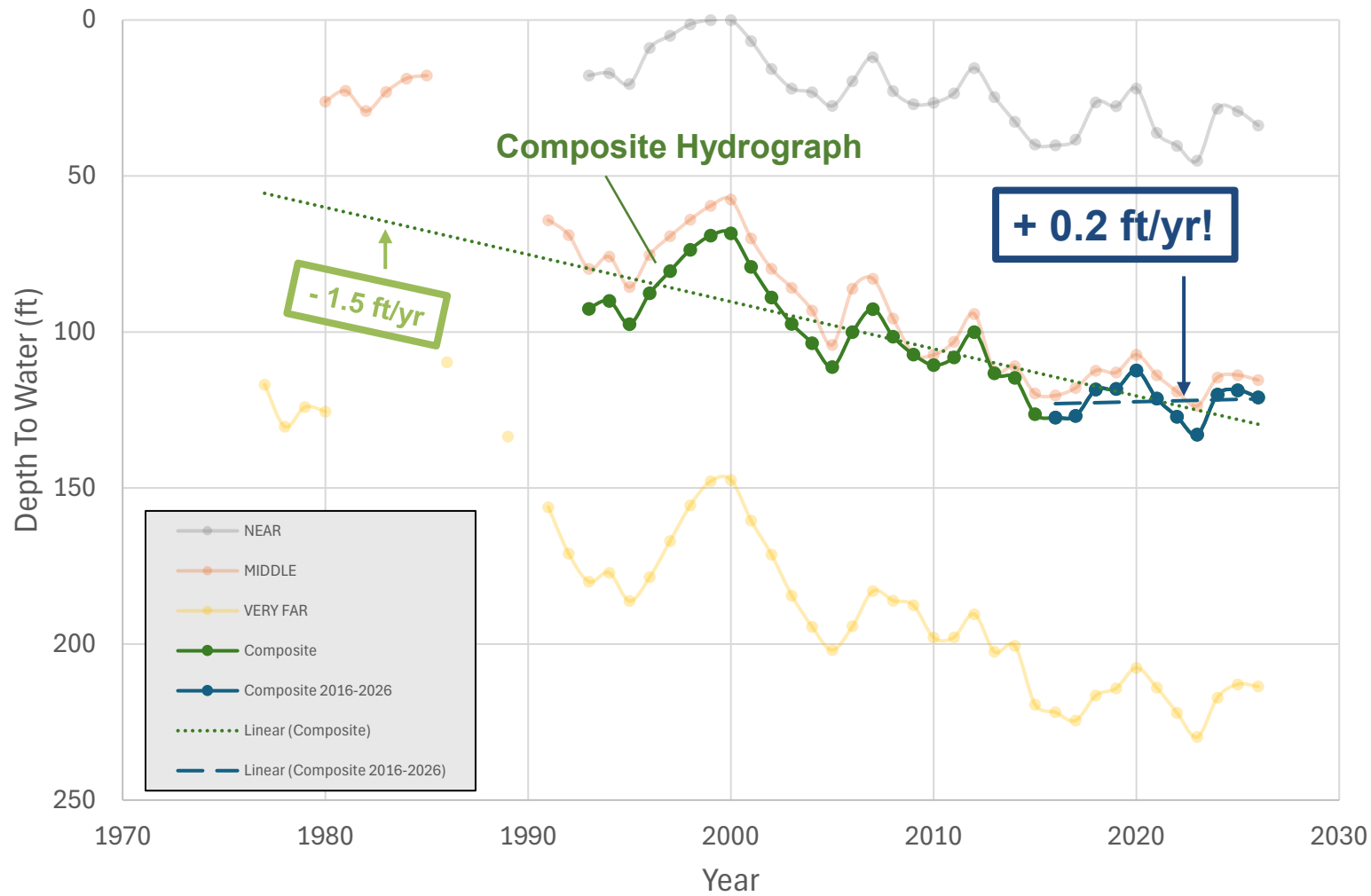
*Excludes Artesia

NORTHERN SMITH VALLEY SPRING 1973-2026



Average Northern Smith Valley Water Level Changes (ft/yr)	
2025-2026	-2.5
2024-2025	-0.8
2016-2026	0.9
2016-2025	1.3

SOUTHERN SMITH VALLEY SPRING 1977-2026

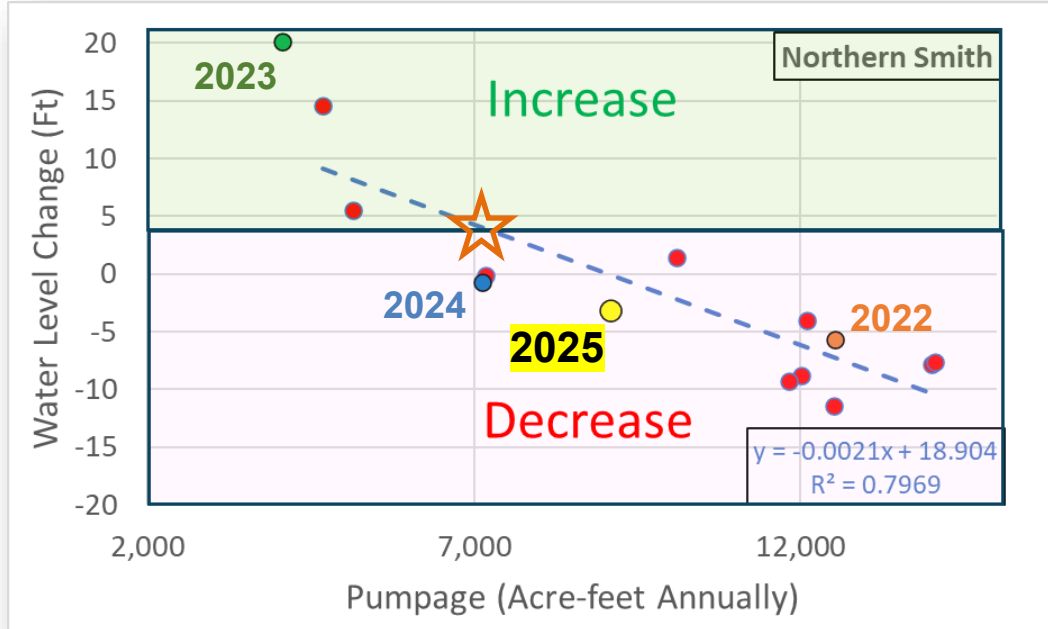


Average Southern Smith Valley Water Level Changes (ft/yr)	
2025-2026	-1.6
2024-2025	-0.5
2016-2026	0.5
2016-2025	0.7

SMITH VALLEY PUMPING VS. WATER LEVEL CHANGE

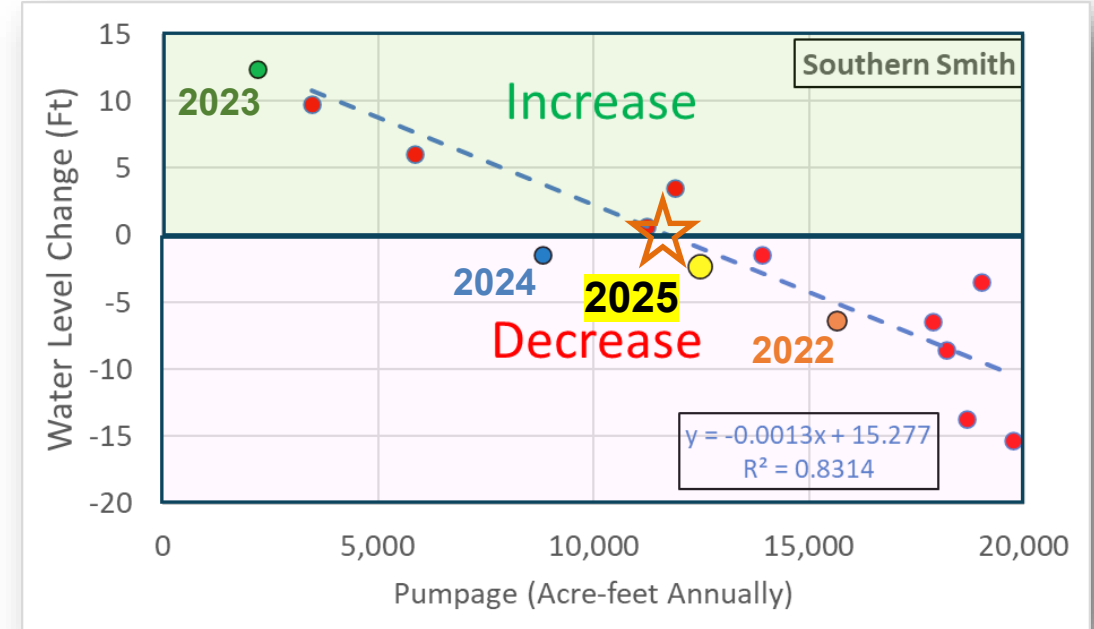
Northern Smith*

2012-21 Average Pumping: 10,360 AF
 Estimated Goal: <9,200 AF



Southern Smith

2012-21 Average Pumping: 13,980 AF
 Estimated Goal: <11,800 AF



*Excludes Artesia

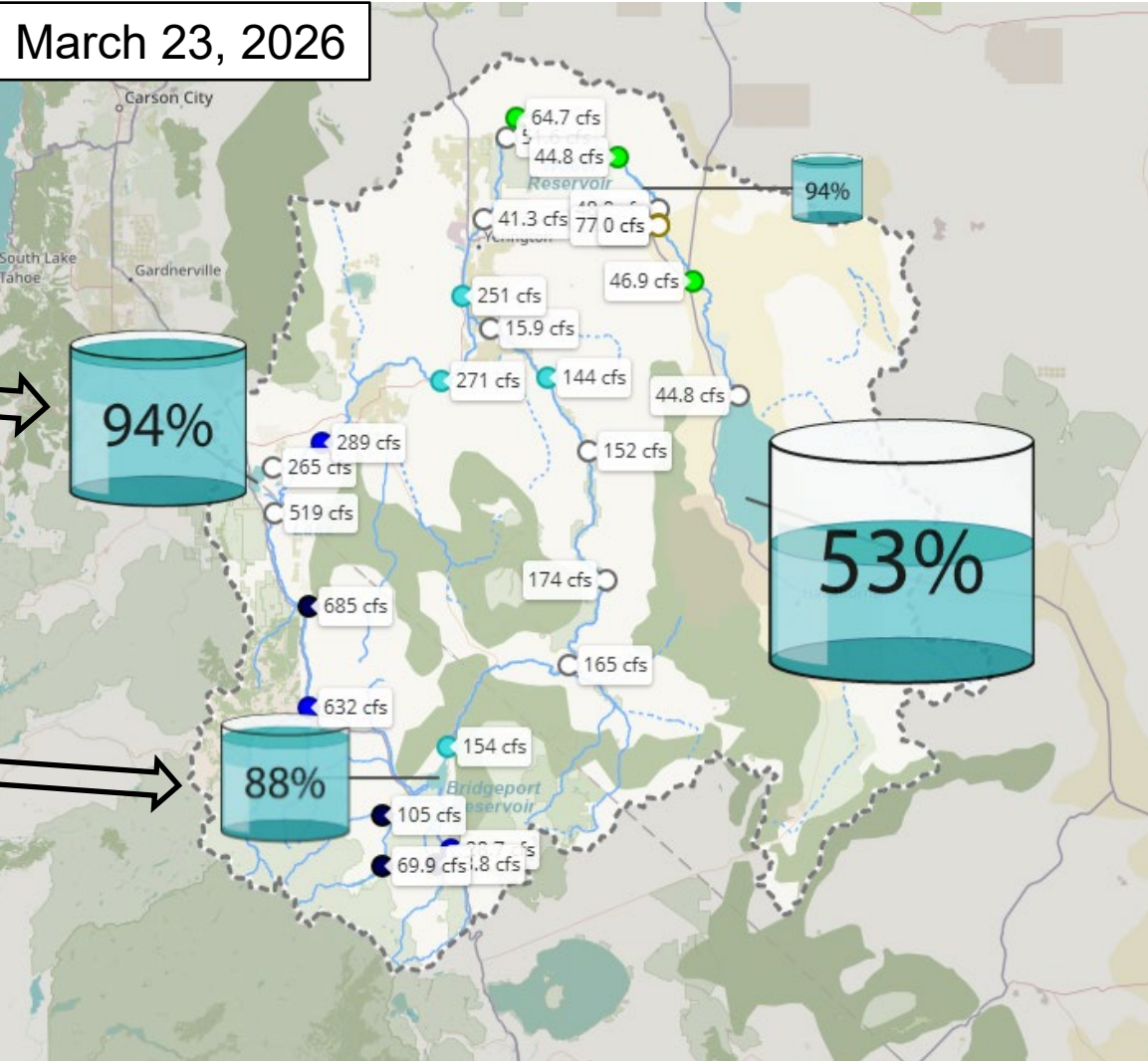
Total pumping reduction goal $\geq 3,400$ AF/yr (average of 21,000 AF)

No water level change @ streamflow of $\sim 169,000$ AF (07-21 median = 100,000 AF)

WATER SUPPLY OUTLOOK



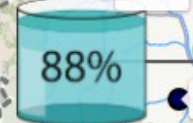
RESERVOIR STORAGE



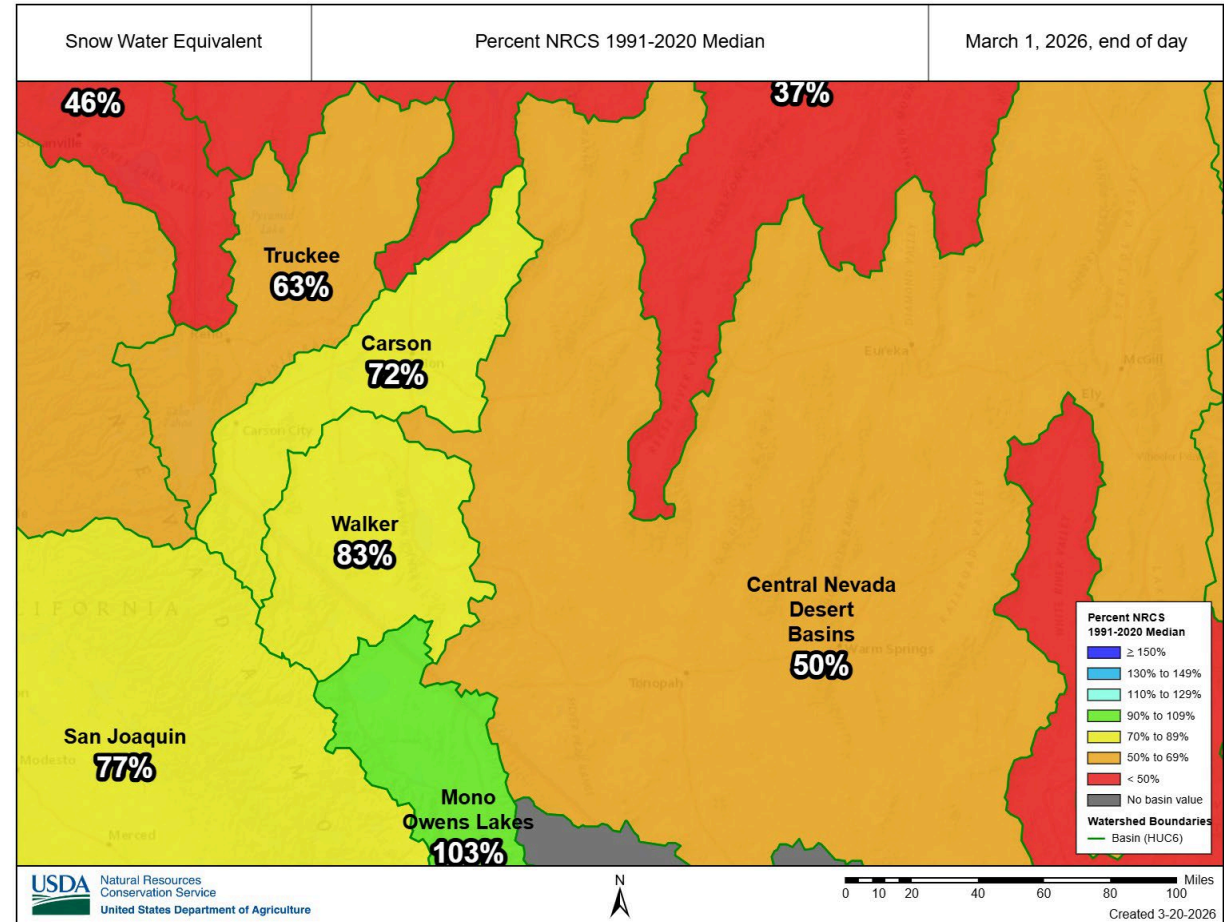
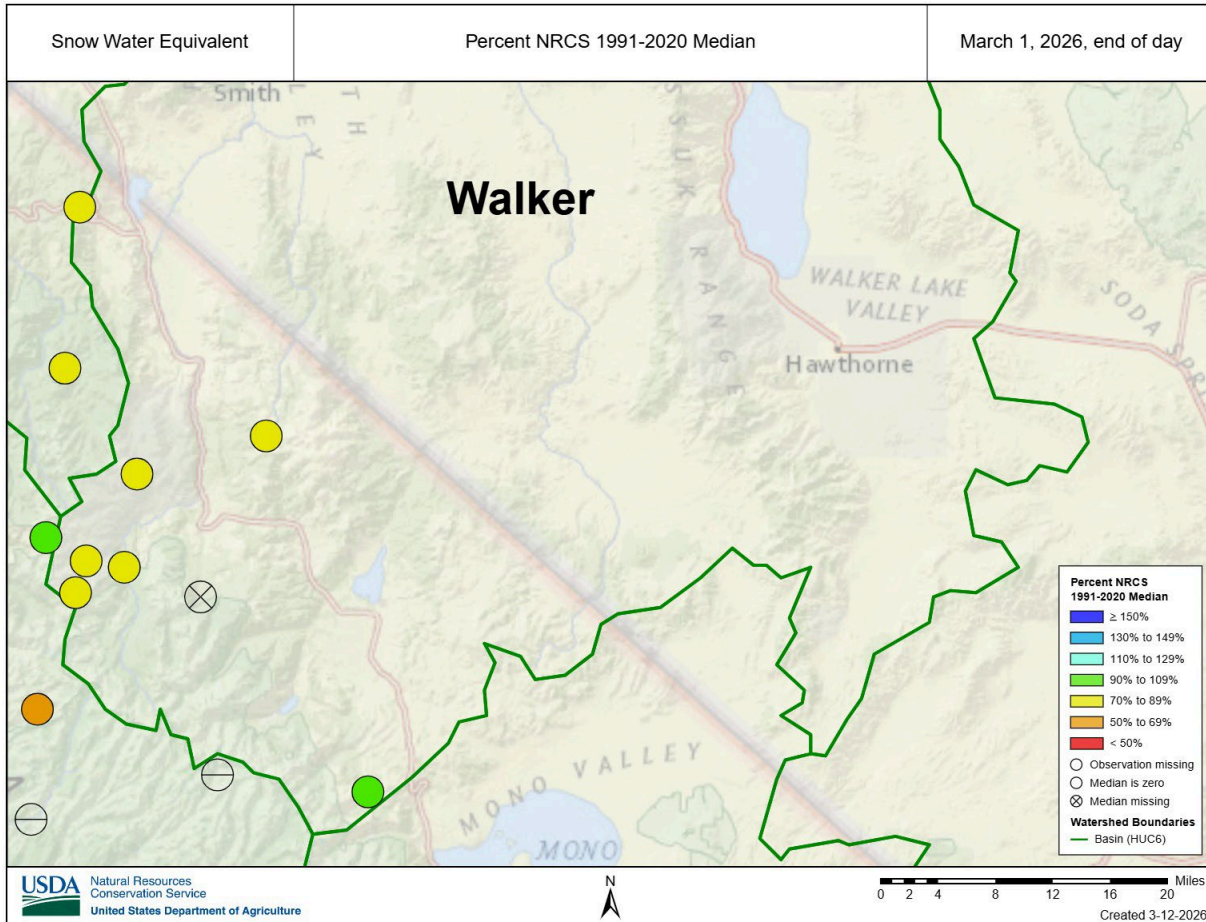
Up 39%



Up 25%



SNOW WATER EQUIVALENT (SWE), % OF MARCH 1 MEDIAN

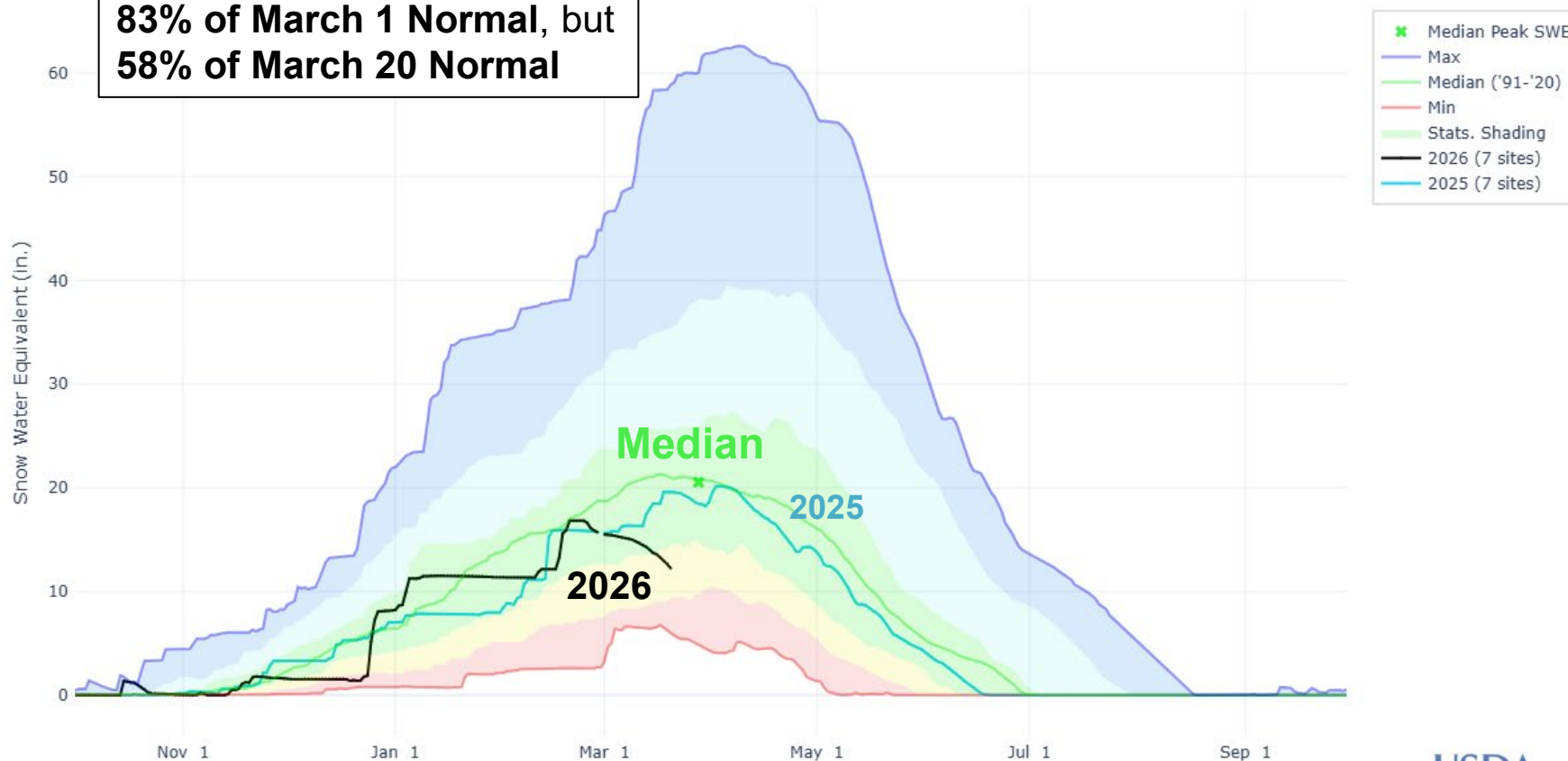


2026 WALKER SNOWPACK (SWE)

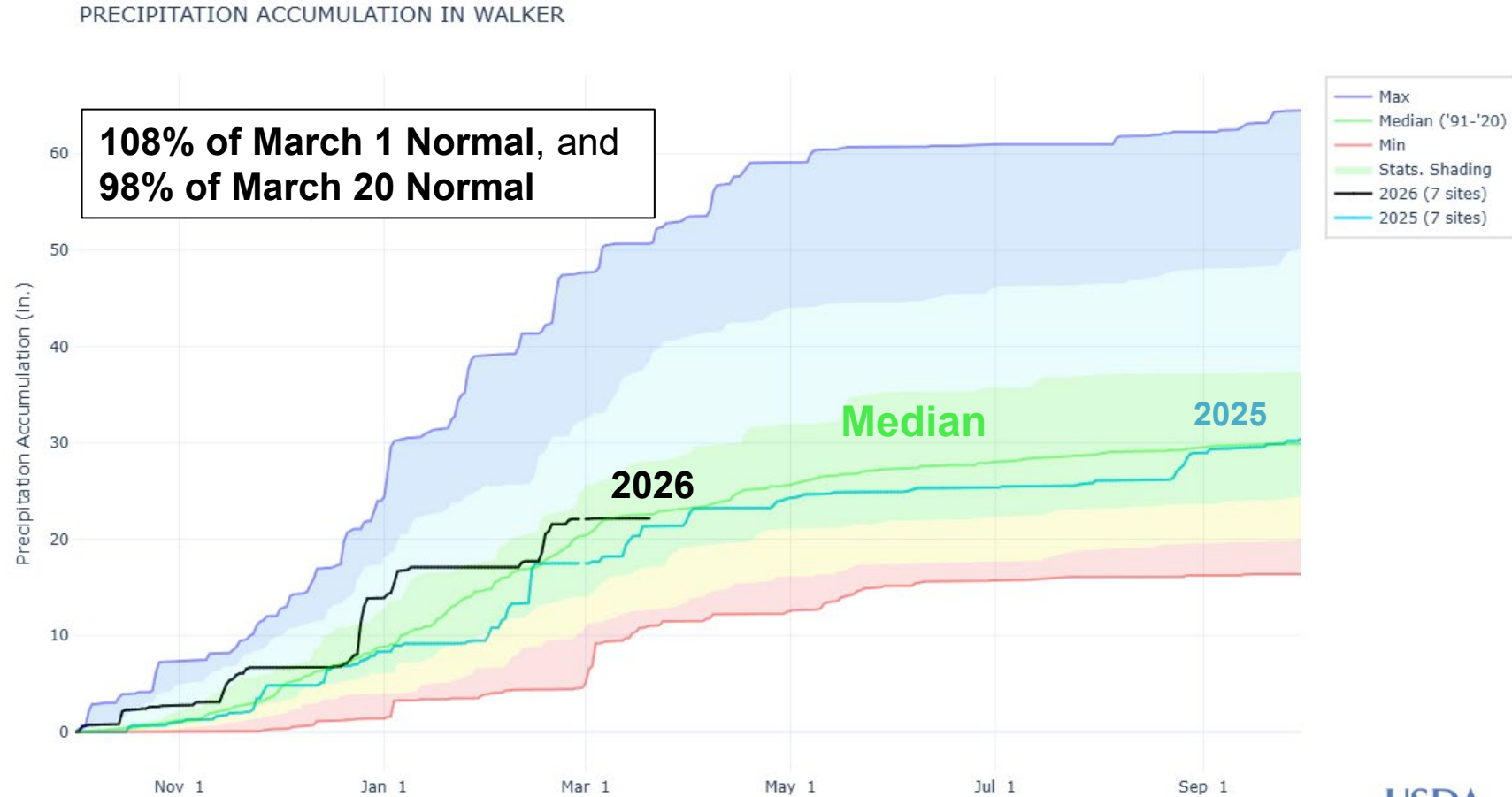


SNOW WATER EQUIVALENT IN WALKER

**83% of March 1 Normal, but
58% of March 20 Normal**

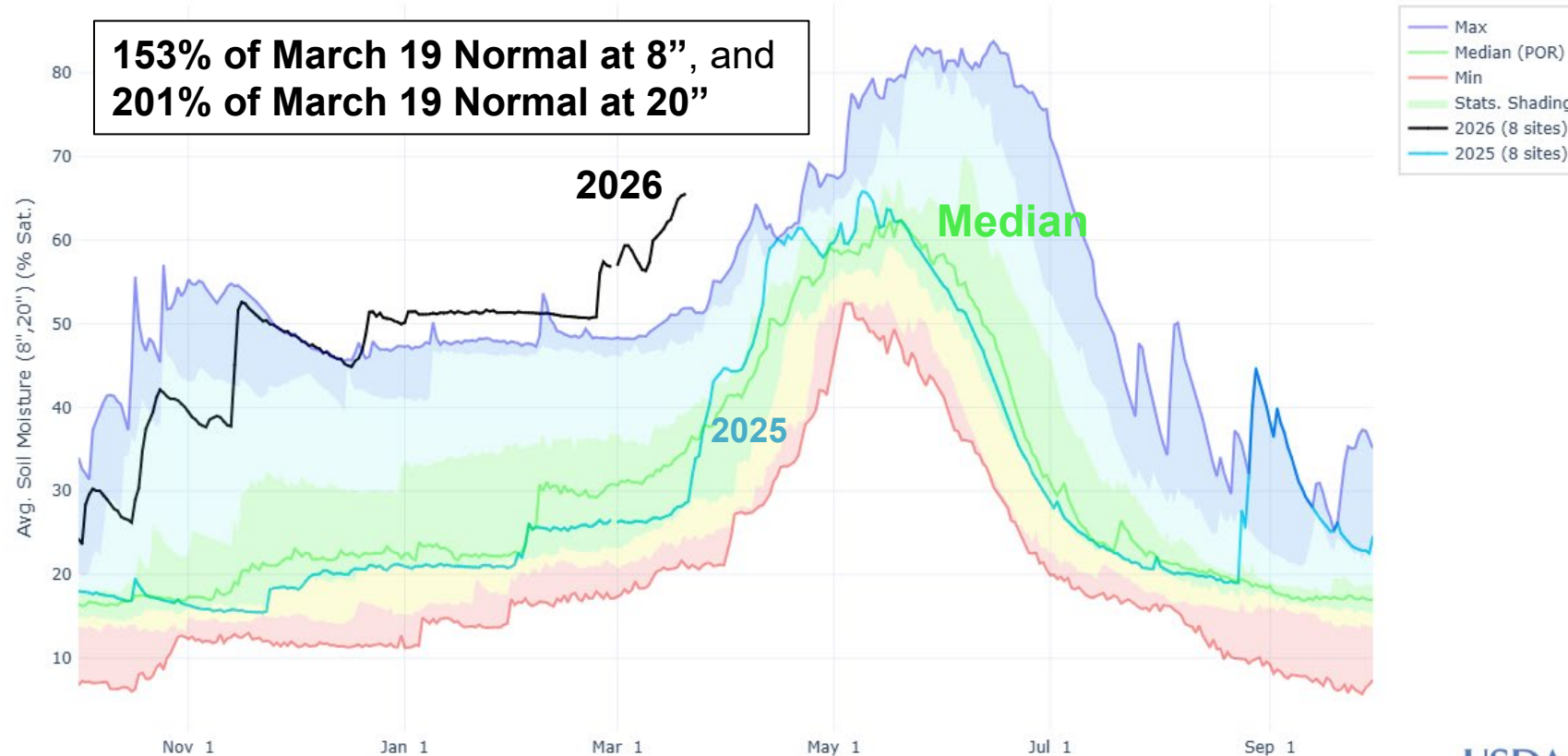


2026 WALKER PRECIPITATION



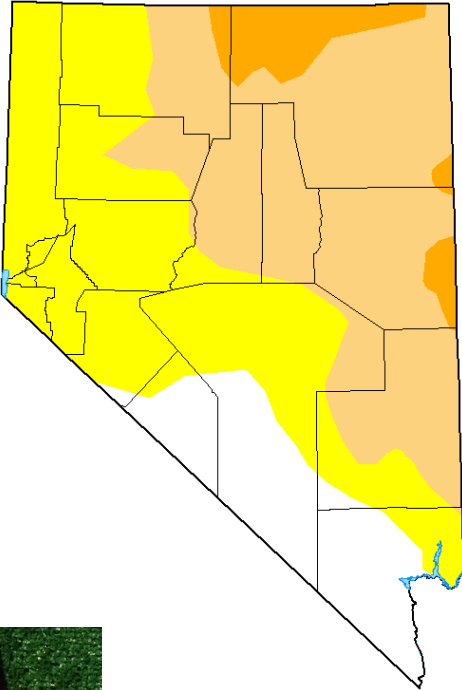
2026 WALKER SOIL MOISTURE

AVG. SOIL MOISTURE (8",20") IN WALKER

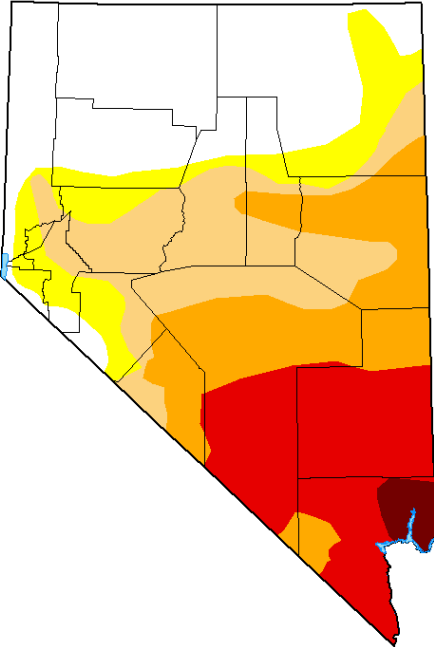


U.S. DROUGHT MONITOR

March 17, 2026



March 18, 2025



- Intensity:***
- None
 - D0 Abnormally Dry
 - D1 Moderate Drought
 - D2 Severe Drought
 - D3 Extreme Drought
 - D4 Exceptional Drought

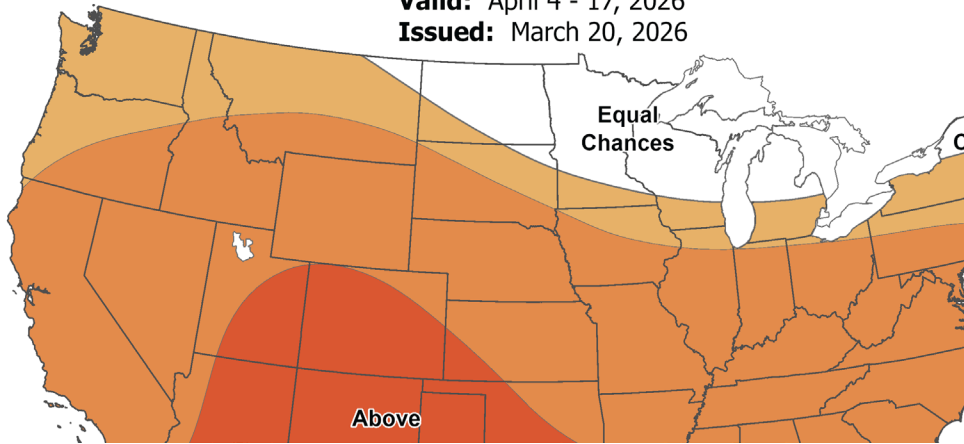


EARLY SEASON 2026 OUTLOOKS



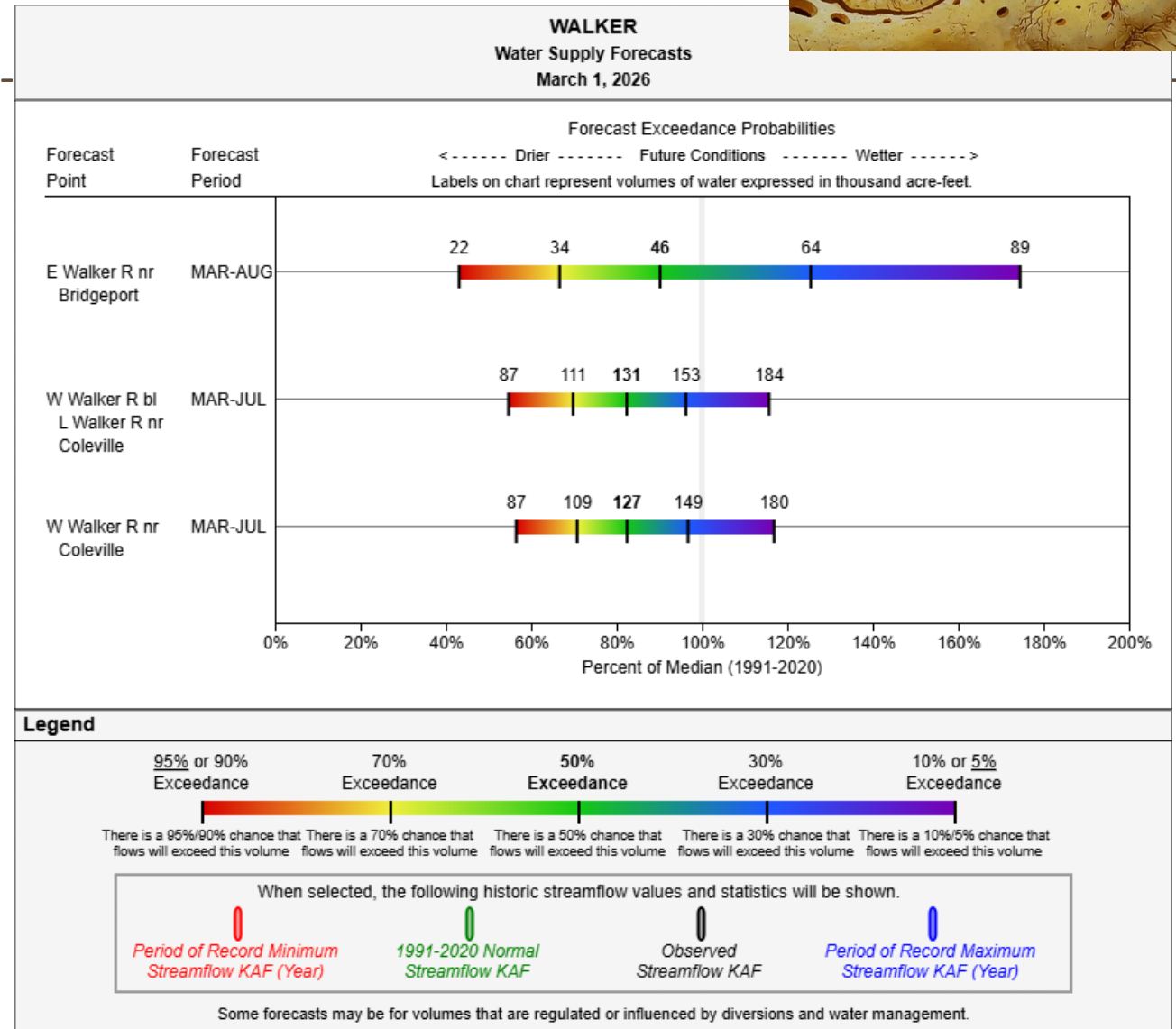
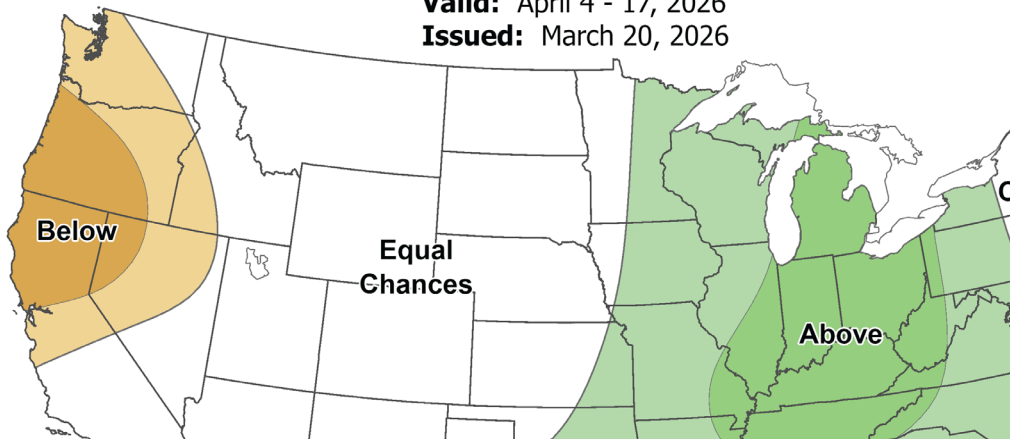
Week 3-4 Temperature Outlook

Valid: April 4 - 17, 2026
Issued: March 20, 2026



Week 3-4 Precipitation Outlook

Valid: April 4 - 17, 2026
Issued: March 20, 2026



2026 PUMPING GOALS - EXPERIMENTAL

REVISED PUMPAGE GOAL

Due to the snowpack peaking in late February and an unseasonably dry March, the pumpage goals for Smith and Mason Valleys have been revised based on April 1 (rather than March 1) snowpack and reservoir storage data.

The new 2026 pumpage goal for Smith Valley is < 25,000 AF.

PUMPING PREDICTION FOR 2026 (APRIL 1) – SMITH VALLEY

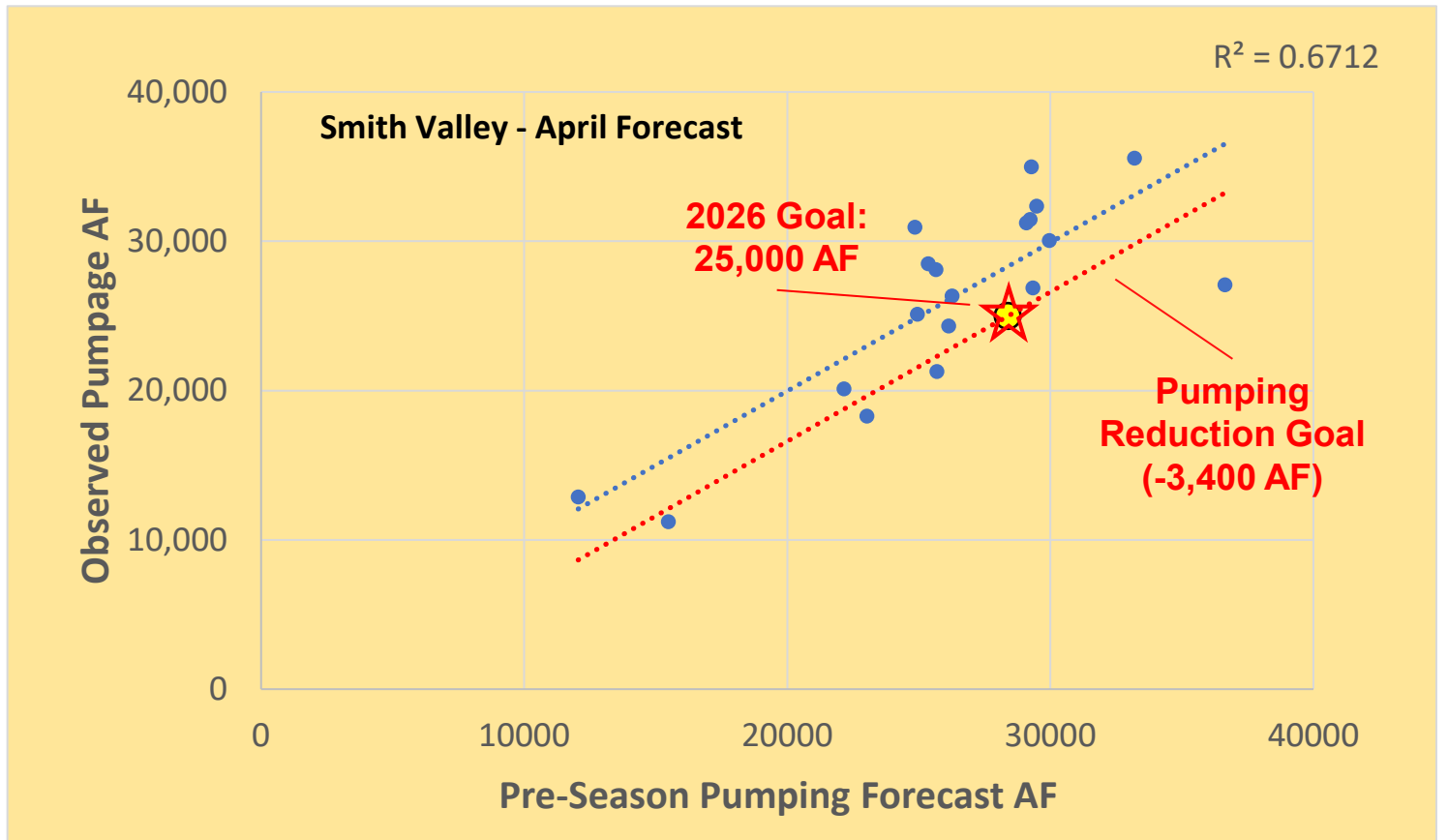
$$\text{April Pre-Season Pumping Forecast} = -0.117*(TP) - 11,826*(SWE) + 39,760 - 3,400$$

April 1 Observations of:

TP = Topaz Storage (57,770 AF)

SWE = West Walker Basin
Snow Water Equivalent (39%)

**2026 pumpage goal for
Smith Valley is < 25,000 AF.**



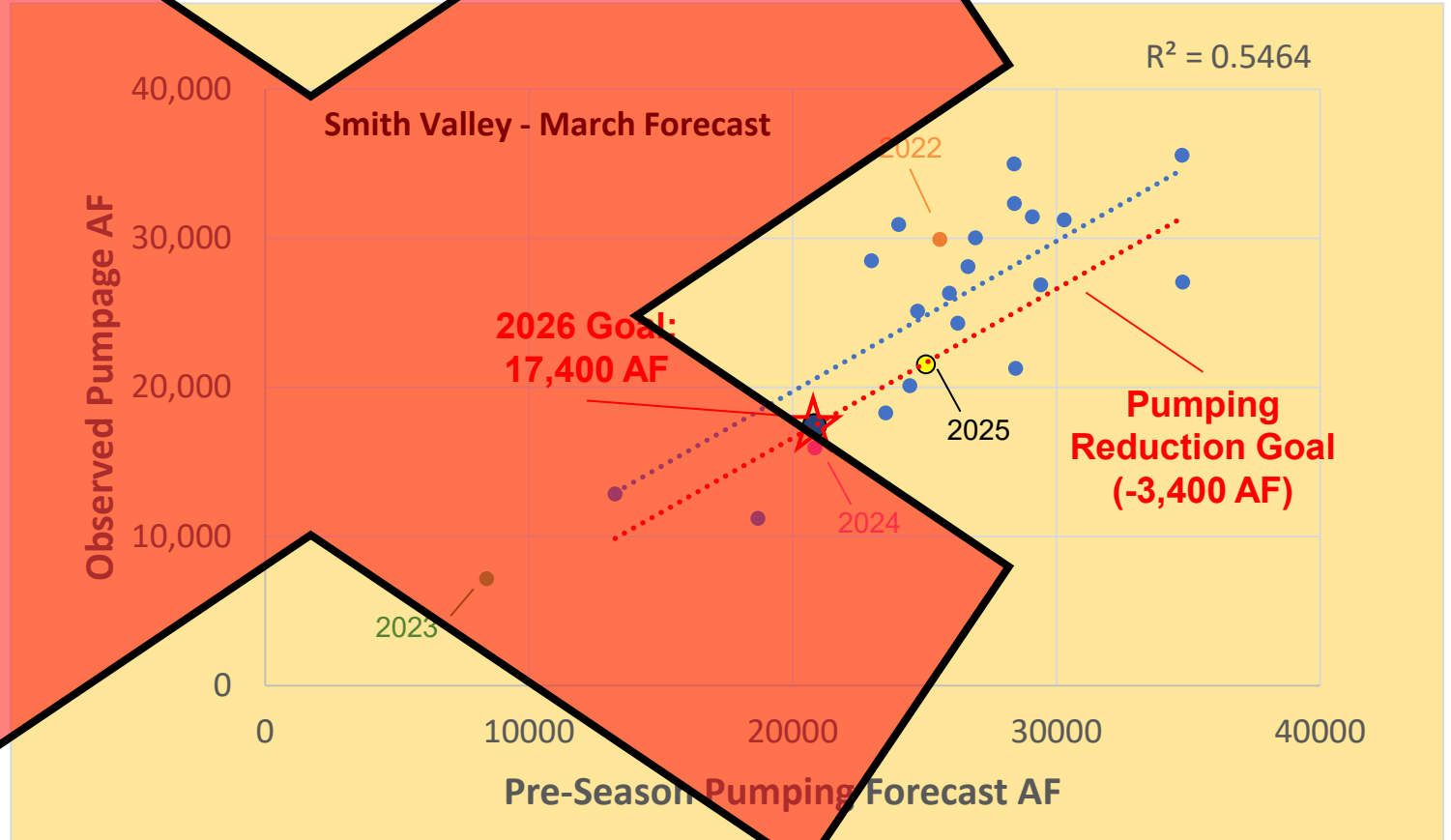
PUMPING PREDICTION FOR 2026 (MARCH 1) – SMITH VALLEY

$$\text{March Pre-Season Pumping Forecast} = -0.215 \cdot (\text{TP}) - 11,870 \cdot (\text{SWE}) + 41,894 - 3,400$$

March 1 Observations of:

TP = Topaz Storage (53,730 AF)

SWE = West Walker Basin
Snow Water Equivalent (80%)



2026 pumpage goal for Smith Valley is < 17,400 AF.

UPDATED: PUMPAGE GOAL VS. TOTAL COMMITMENTS

2026 Pumpage Goal for Smith Valley: 25,000 AF

- Groundwater commitments: ~58,475 AF
 - Irrigation groundwater commitments: ~55,430 AF

2026 pumpage goal is about 43% of the total groundwater commitments in the basin

SUMMARY AND OUTLOOK

SUMMARY FOR 2025 SEASON

- 2025 pumping greater than 2024 (as expected).
- Pumpage goals ~perfectly~ met in both Smith and Mason Valleys.
- Groundwater levels declined more than expected in each valley, so pumpage goals may need to be revised lower.
- Long-term hydrographs still show declining trends, but recent period (2016 – 2026) still has increasing trend.





OUTLOOK FOR 2026 SEASON

BLUF: It will be much harder to meet the 2026 pumpage goal

(Bottom Line Up Front)

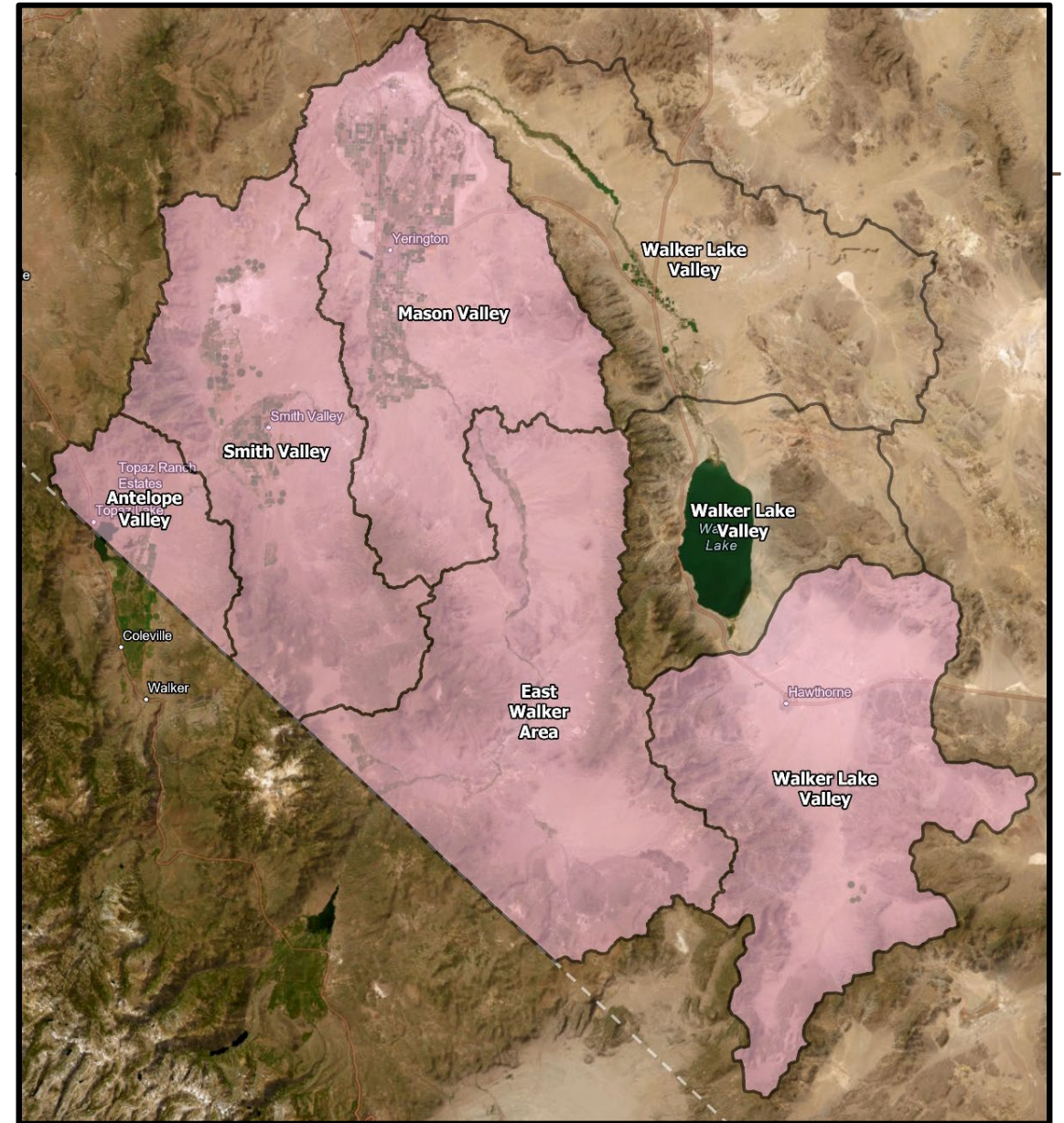
- WY26 has tracked similarly to WY25 through February, but the unseasonably warm and dry March is leading to early and rapid snowmelt.
- Aiming for less supplemental pumping this year due to higher reservoir levels, but this also depends on runoff patterns and valley soil moisture.
- Peak discharge likely to occur earlier, causing decree to fall off fast and wells to turn on sooner (which we are already seeing)
- Maximize opportunities to turn off your wells (e.g., do not irrigate on rainy days)

2026 pumpage goal for Smith Valley is < 25,000 AF.



EXTRA, EXTRA! READ ALL ABOUT IT!

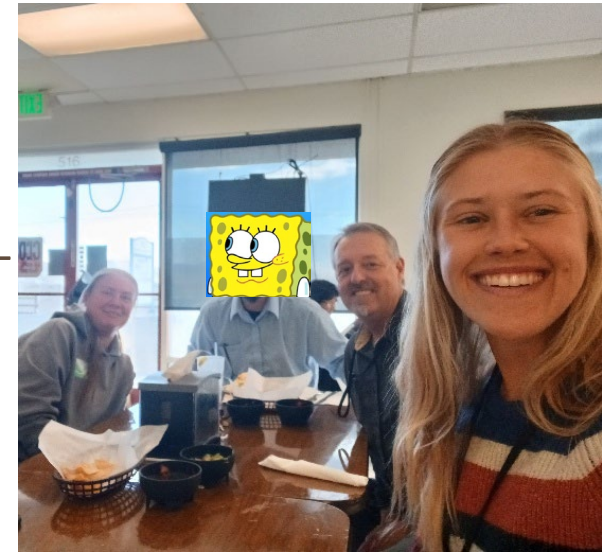
- East Walker Designation and Meter & Reporting Order
 - East Walker Area (Basin 109) was designated on June 23, 2025
 - Enables enhanced management by the State Engineer
 - No new appropriations allowed in the basin (with minor exceptions)
 - Also issued a meter and reporting order on June 23, 2025
 - East Walker Area is now within the same management scheme as Smith and Mason Valleys
- New State Engineer – Joe Cacioppo



Questions?



Contact



Lauren Bartels

Water Resource Specialist II

Phone: 775-684-2828

lbartels@water.nv.gov

Division of Water Resources

901 S. Stewart Street #2002

Phone: 775-684-2800

water.nv.gov

